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BLUESTEM

Newsletter for the Louisiana Natural Areas Registry

Working with Landowners towards Conservation of Louisiana's Native Habitats

In This Issue

LNHP Says Goodbye to a Dear Friend

It is with great sadness that we report the passing of a longtime veteran and friend of the Natural Areas Registry Program. Mr. George Dickson, primary owner of Dickson Nature Preserve in De Soto Parish, passed away in November 2015. Dickson Nature Preserve has been enrolled in the Registry since 2007. Mr. Dickson took a special interest in the natural beauty of the Saline Prairie and adjacent forest on his property. His commitment to protecting these last remaining slices of heaven will forever be admired and appreciated by the LNHP team. We are honored to have had the opportunity to know and work with Mr. Dickson.

LEFT: Dickson Prairie is one of the few sites in Louisiana where Earth-fruit (*Geocarpon minimum*), a species federally listed as threatened, is found. In the above photo, Chris Reid (left) shows Mr. Dickson (right) a saline "slick." Earth-fruit tends to occur on the edges of such slicks. **RIGHT:** Saline Prairie on Dickson Nature Preserve.

LNHP's Amity Bass shows Mr. Dickson a flower from a Prickly Pear Cactus (*Opuntia nemoralis*). On a visit to Dickson Nature Preserve in May 2015, Mr. Dickson and his sons met with LNHP and LDWF staff to tour his property.

Don't Forget to Contribute!

We always welcome member contributions to the newsletter. Any Natural Areas member may submit news, an informative article, or images for potential publication in Bluestem. The content may report new developments on a Natural Area or share information that might be interesting to other members. Please email your contributions to Sairah Teta (sjaved@wlf.la.gov) or save it to a CD and snail mail it to her at 1995 Shreveport Hwy, Pineville, LA, 71360.

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IS THAT SNAKE WORTH ANYTHING?

BY Jeff Boundy, *LDWF Herpetologist*

As a herpetologist I find the opportunity to search for reptiles in natural habitats to be an uncommon treat. Much of Louisiana is rural, but undisturbed parcels are rare, and it is in such scarce enclaves that I can study the natural interactions of the creepers and crawlers of our state. That so many unseen, faunal gems might exist on one's property is often a revelation to landowners. One property owner was both baffled and somewhat annoyed that I was spending my time in his pristine plot digging around in leaf litter and looking under logs. He was proud of the fact that his family's land had remained unique in that it looked much the same as it had when first homesteaded in the 1800s. So why was I nosing around in decaying vegetation and not affirming the grandeur of massive sweetgums and red oaks, whose canopies arched more than a hundred feet over our heads? The answer came in the form of a small, brightly colored Milk Snake that I snatched from under the loose bark of a giant log. Despite the fact that the land had been occupied by his family for several generations, the man had never seen a Milk Snake. Shortly thereafter other novelties were discovered - a Red-bellied Snake, a Worm Snake, and a Hog-nosed Snake - all with the assistance of the landowner, who had begun enthusiastically poking about the logs and brush piles with a stick. One thing that these snakes have in common, aside from never having been known to the property owner, was that they are indicators of natural habitats. The man asked if these were "good" snakes. Well, is there such thing as a "bad" snake? Another gentleman once averred to me that bad snakes were the ones with an attitude - the rattlers, cottonmouths and rat snakes. These guys wouldn't get out of your way, and they seemed always ready for a fight. This fellow, too, had detected

ABOVE: Milk Snake (*Lampropeltis triangulum*): Not to be confused with the venomous Coral Snake (*Micrurus tener*), Milk Snakes tend to remain concealed within and under rotting logs, standing dead trees, and in cavities of live trees. Remember, "If red touches yellow, you're a dead fellow. If red touches black, you're OK Jack."

RIGHT: Coachwhip (*Coluber flagellum*): Coachwhips are fast-moving snakes that inhabit dry, open pinelands and mixed woods. They readily climb trees and shrubs. They receive their name from the pattern of the scales on the tail, which has a braided appearance.

LEFT: Hog-nosed Snake (*Heterodon platirhinos*): Hog-nosed Snakes rarely bite, but have a surprising repertoire of defensive behaviors. Upon first encounter, Hog-nosed Snakes will flatten and spread their necks into a cobra-like fashion. They will then hiss and strike, although the striking behavior is all bluff and no bite. If these postures don't scare off the potential predator, the snake will roll onto its back and play dead.

RIGHT: Cottonmouth (*Agkistrodon piscivorus*): They often remain coiled near water, or on log jams in water, and rarely climb shrubs or palmettos. They are highly defensive and not inclined to get out of one's way. The best way to protect yourself from a Cottonmouth is to simply walk away. Keep in mind, when trying to decipher whether a snake is a venomous species or not, that venomous snakes have elliptical pupils and non-venomous snakes have round pupils.

something in common among those snake species. He was correct that they tended not to get out of his way, but that was because those snakes rely on camouflage for protection. By not moving, they are hoping they are not seen, and that the gentleman, as well as any other large predatory form, would walk past them. If concealment fails, then there is usually no other option than to fight for their life, which usually avails itself in the form of coiling, trying to look scary, and striking. In other words, they do what the average person would do in the presence of danger. It had never occurred to this man that he could simply turn course and continue on his way in uninterrupted safety.

DID YOU KNOW?

Only seven of Louisiana's native snakes are venomous, and many of the others are not known to bite. If you are bitten by a non-venomous snake you may be left with a painless reflection of the marvelous means by which a beast without hands can swallow a meal.

Non-venomous snakes can have several rows of teeth that are slightly recurved like a cat's claw. The shape of the teeth enable the snake to maintain a grip on its prey, and the several rows of teeth operate in an alternating fashion: one side of the head draws backward while the other side releases its grip momentarily to re-grasp a little further along the prey's body. Once that feat is accomplished, the snake curves its neck from side-to-side, forcing dinner back into its stomach.

The original landowner used "good" snake in the sense that they were indicators, not just of the aesthetic value of his land, but of the ecological functionality of the land and plants and animals thereon. Rather than just a small block of woods serving as a showpiece of trees, this landowner's property was large enough to maintain self-perpetuating populations of animals that do not adapt well to disturbance. Some snake species are highly adaptable: Rat Snakes thrive in neighborhoods with large trees, Dekay's Snakes seem to prefer flowerbeds to the forest floor, Diamond-backed Water Snakes "flock" to subdivision ponds, and Racers abound in cutover woods and abandoned fields. Such snakes also occur in pristine habitats, but their presence is not remarkable. Other serpents that flag important habitats include the Pine Woods Snake, found only in old Slash Pine Forests on the Lake Pontchartrain north shore, the sleek Coachwhip that persists in woodlands that are managed with prescribed burns, and the Rainbow Snake that occurs in relatively clear streams and rivers of the Florida Parishes. If you have any of these snakes on your land, then you possess something of natural importance, and you may even have something of scientific importance. Several snake species have not been seen in Louisiana in decades, at least on public lands: the Harlequin Coral Snake, last seen in 1984; the Mole King Snake, rare but present at least until 1990; and the Black Pine Snake, a newly listed Endangered Species last encountered in 1964. It may be up to vigilant landowners to rediscover these snakes, so next time you are admiring your natural area, don't look up, look down!

In this article I've mentioned 16 of Louisiana's 48 snake species. For more information on these and the others, visit our web page at *http://www.wlf.louisiana.gov/resource/snakes-louisiana.*

Spadefoot Toads: *Scaphiopus hurterii* and *Scaphiopus holbrookii*

BY Charles Battaglia, *LDWF Field Biologist*

People often imagine frogs on lily pads in ponds, eating any flying insects that venture too close; this description is appropriate for the well-known American Bullfrog, but is unfitting for the lesser known spadefoot toads. There are two species of spadefoot toads that occur in Louisiana, the Hurter's Spadefoot Toad (*Scaphiopus hurterii*) and the Eastern Spadefoot Toad (*Scaphiopus holbrookii*). One does not have to worry about confusing the two species, as there ranges do not overlap. The Eastern Spadefoot is found only in the Florida Parishes east of the Mississippi River and the Hurter's Spadefoot is found in central to northwestern Louisiana. Both are considered species of greatest conservation need in the state of Louisiana.

Spadefoot Toads can readily be distinguished from other frogs and toads by their vertical pupils that resemble that of a cat's, as well as the spade-like projection on their hind feet that gives them their name. The spade is used to burrow into soil for protection from predators and to gain access to moisture beneath the surface. This necessity to burrow largely dictates where these species can live, resulting in a close association with loose sandy soils. At the same time, this characteristic allows them to inhabit much drier climates; such as upland pine ecosystems. This burrowing provides a beneficial service to the habitat by aerating and mixing the soil, much like the harvester ants mentioned in the previous newsletter issue. From these burrows, toads will venture short distances at night to eat earthworms, millipedes, snails and other invertebrates.

Torrential warm rains, typically in the spring, prompt a mass migration of the toads from their burrows to temporary ponds that form due to the sudden deluge. These temporary ponds are where the spadefoot toads breed. Hundreds if not thousands of individuals can occur in a pond and be heard calling at night, often well into daylight hours. The call of the Eastern Spadefoot sounds like a short "err," and the call of the Hurter's Spadefoot a bleating "waagh." The calls are similar and have comically been described as something akin to someone with gastrointestinal distress. Breeding events last only a few days but results in thousands of tadpoles. Each female toad can lay between 1,000 to 5,000 eggs. The temporary pools will dry up quickly, so the eggs and tadpoles develop at an expedited rate. In warm weather eggs can hatch in a single day. Spadefoot tadpoles can readily be seen in schools swimming, while other frog species' tadpoles do not congregate and often hide in the vegetation. Spadefoot tadpoles can develop into toadlings between 12 to 40 days depending on the temperature. Compare that to the American Bullfrog which takes about 160 days to mature in Louisiana.

Many snakes, birds, and mammals are predators of adult and juvenile spadefoot toads. When breeding, spadefoot toads are more vulnerable to predation and likely become a snack for the hungry raccoon or opossum. It is doubtful that spadefoot toads will ever become an entrée for humans, but their existence is necessary to preserve integral links in the food chain.

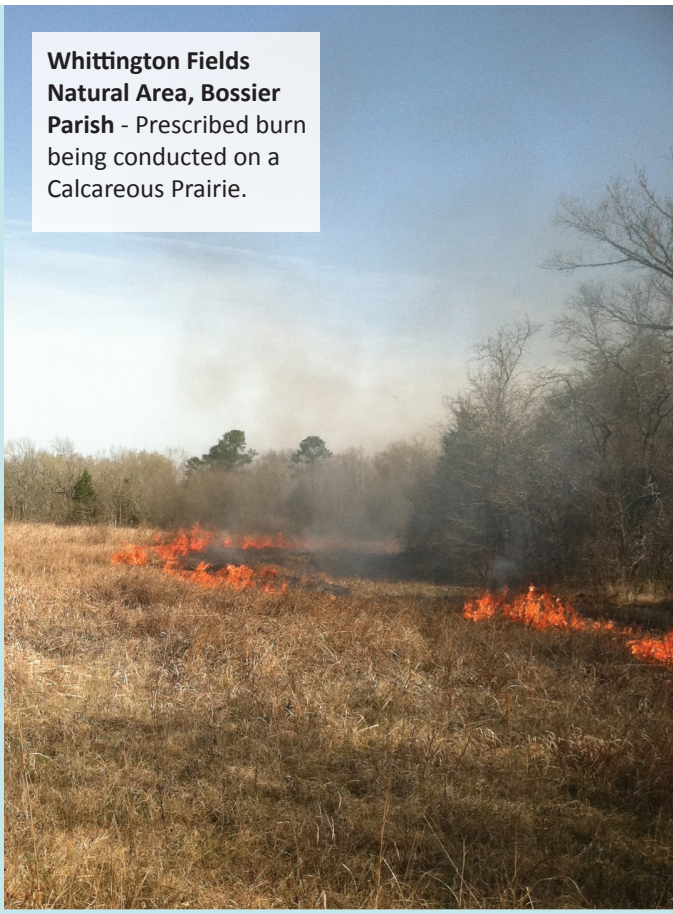
The spade-like projection found on both species of spadefoot toads can be seen here, as a protrusion on the far right of the foot.

HERE'S WHAT'S HAPPENING ON OUR NATURAL AREAS

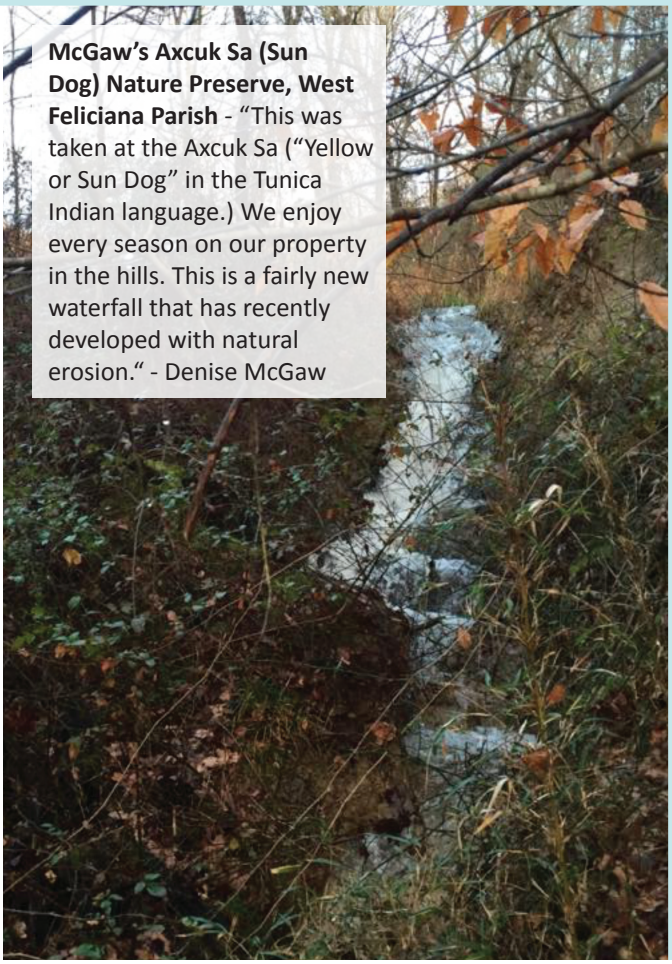
Heartwood Natural Area, Union Parish - Bulbous Adder's-tongue Fern (*Ophioglossum crotalophoroides*) (left) and Southern Twayblade Orchid (*Listera australis*) (right), growing in Shortleaf Pine/Oak-Hickory Forest.

Bayou Bodcau Dam and Reservoir, Red Cockaded Woodpecker Management Area, Bossier Parish - A broadcast herbicide application being performed in pine woodland to control understory hardwoods.

Evergreen Farm at Carter Bottom, Bienville Parish - "Here is a colorful sunset at Evergreen Farm in Bienville Parish. Every evening we watch for a watercolor show through the pines." - Beth Fontenot



Whittington Fields Natural Area, Bossier Parish - Prescribed burn being conducted on a Calcareous Prairie.



McGaw's Axcuk Sa (Sun Dog) Nature Preserve, West Feliciana Parish - "This was taken at the Axcuk Sa ("Yellow or Sun Dog" in the Tunica Indian language.) We enjoy every season on our property in the hills. This is a fairly new waterfall that has recently developed with natural erosion." - Denise McGaw

Hoover Lake Natural Area, Catahoula Parish - Hunting for ducks in the Baldcypress Swamp.

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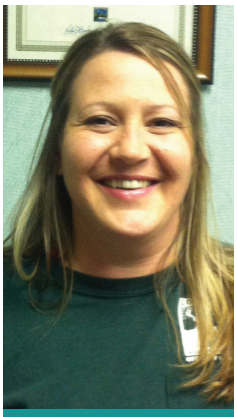

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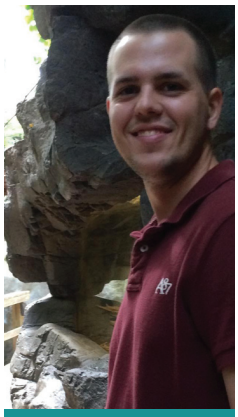

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MYSTERY ANIMAL

This issues mystery animal is a "cutie" that is found throughout the United States but is considered rare in Louisiana. It is a small mammal with a long body, short legs, and a long tail (hint, hint!). Its belly and chin are white to yellowish-white and its tail has a black tip. This little creature usually lives close to water; however, it can live in a wide variety of habitats including brushland, and open areas such as woodlands, marshes, swamps, field edges and riparian grasslands. It dens in burrows that have been abandoned by other species, brush piles, hollow stumps, or among tree roots. Main food items for this species include small mammals, birds, and insects.

WHAT IS IT?

Email your answers to Sairah Teta (sjaved@wlf.la.gov)

MYSTERY PLANT

This issue's mystery plant is a rare carnivorous species that grows in Hillside Seepage Bogs and wet Longleaf Pine Savannahs in the Florida Parishes. The flower is bright yellow to straw colored and very rarely white. The stem is covered in fine hairs. The top surfaces of the leaves are covered by stalked glands that secrete a sticky mucous-like substance. Small insects will land on the glands, mistaking the mucous substance for water, and become stuck. Once an insect is trapped, digestive enzymes are released from the glands to absorb nutrients from the unfortunate prey!

WHAT IS IT?

***The mystery plant from last issue was Chokeberry (*Aronia arbutifolia*).**